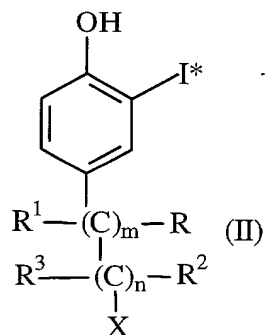


ABSTRACT OF THE DISCLOSURE

The present invention concerns the use of a radioiodinated phenolic compound of the formula



wherein: m and n are independently 0, 1, 2 or 3, X is a group that is negatively or positively charged at physiological pH, R, R¹, R² and R³ are independently hydrogen, C₁-C₄ alkyl, or a carboxyl group, and I* is ¹²³I, ¹³¹I or ¹²⁵I, and its pharmaceutically-acceptable salts. The compound is formulated and used *in vivo* in an animal in brachytherapy in an implantable catheter. In addition, due to the rapid renal clearance of these compounds, they may be used to study renal function. A process to prepare these compounds is also disclosed.